No 289 BULLETIN OF THE OHIO STATE UNIVERSITY AGRICULTURAL EXTENSION SERVICE DECEMBER, 1947

SAVE GRAIN

The 1947 feed grain supply of Ohio is about 20% below last year and 5% below average. The prospects are not good for any normal movement of such grains into the State from surplus areas of other years. Therefore, if we assume that as many grain-consuming animals will be fed in Ohio during the 1947–48 feeding season as during the 1946–47 season, we will be short about one-fifth of the normal grain feed per animal. The following suggestions are offered to help save grain.

Crop Suggestions

Get Larger Grain Yields by Fertilizing.—At present relationships between the price of crops and the price of fertilizer, the use of much more fertilizer than has been used is highly profitable.[1] Unfortunately, indications are that not much more fertilizer will be available in 1948 than was available in 1947. All available fertilizer should be utilized to the utmost.

Since the fertilizer supply is likely to be less than the demand and less than we can profitably use, it is important to use what we have in the most economical way. For corn, 300 to 400 pounds per acre drilled with drilled corn or as a row application on checked corn at the time of planting will give as large returns as a considerably greater amount plowed under. With ordinary planters the top limit is about 150 pounds per acre in the hill before injury to germination and stand begin.

Value of Farm Manure Increases.—With the doubling and trebling of crop prices, the value of farm manure has also doubled or trebled. Greater care in saving and using farm manure will pay large dividends. Probably no greater single opportunity for increasing returns to farmers in 1948 exists than through the general adoption of better methods of caring for and spreading farm manure.[2]

Good Pastures Save Grain.—Nitrogen-carrying fertilizers may be profitably used on pastures in order to save grain and hay in the early spring. They may be applied to good grass sods any time when the ground is not frozen up to the middle of March. Treat about ⅓ acre for each animal unit of livestock to be pastured with 60 pounds of nitrogen per acre (300 pounds sulphate of ammonia or equivalent amounts of other carriers). This will save much grain by getting stock on pasture about two weeks earlier.

[1] See Ohio Agricultural Extension Service Bulletin 283: Ohio Fertilizer Recommendations.
[2] See Ohio Agricultural Extension Service Bulletin 262: Manure, Its Management in Barn and Field.

THE OHIO STATE UNIVERSITY AND THE U. S. DEPARTMENT OF AGRICULTURE, COOPERATING
AGRICULTURAL EXTENSION SERVICE, H. C. RAMSOWER, *Director*, Columbus, Ohio
Printed and distributed in furtherance of Acts of May 8 and June 30, 1914

Permanent pastures in eastern Ohio may well be treated with agricultural ground limestone at 1 to 2 tons per acre at any time when it is possible to get it on, and with superphosphate or 0-14-7 at the rate of 400 to 500 pounds per acre.[3] This treatment will not give large immediate returns. But, as white clover comes back and brings in bluegrass, the yield will be more than doubled. The same soil treatment plus a vigorous scarification of the sod with a disc or a field cultivator and the sowing of alfalfa, red clover, and grass will give considerably greater returns the year after treatment.[4]

Summer grazing grain can be saved next summer by providing supplementary pastures of Sudan grass or second cutting alfalfa and red clover. This will enable you to avoid feeding large grain rations when the bluegrass gets short, as it does practically every summer. An acre of Sudan grass pasture sown June 1 at 25 to 30 pounds per acre will furnish pasture for from 1 to 3 head of stock during the summer dry period.

As soon as possible the acreage of meadows (containing ladino clover) should be increased so that all the hay and summer pasture needed is being produced. Alfalfa, clover, ladino clover, and grass mixtures make the best summer pasture .

Reduce Weevil Losses.—Weevil losses to wheat stored in farm bins were larger during the summer and fall of 1947 than ever reported before. Proper treating with carbon bisulfide is an efficient means of preventing or reducing this damage, but this cannot be satisfactorily done when the air temperature is less than 60°F. In winter, the most effective treatment for weevily wheat is to move it from one bin to another in order to cool it thoroughly so that the insects will not continue to increase. If the wheat can be put through a fanning mill and thoroughly cleaned, so much the better. If the wheat is still in storage when air temperatures again rise above 60°, it should be treated with carbon bisulfide.

At all events wheat bins should be thoroughly cleaned and sprayed with 5% DDT solution or emulsion next summer before putting other grain in them. All old grain should be removed and the bin thoroughly treated.

Prevent Spoiled Corn.—Much of the corn that went into storage in the fall of 1947 was too wet for safe keeping. So long as the weather remains cool, this corn will not spoil; but, when the weather warms up in March, April, and May, it will spoil rapidly. Much can be done between now and then to reduce this spoilage. Any spoilage is an unnecessary and unjustifiable waste of valuable and badly needed grain. Corn can be sorted as it is put in. Remove small, wet, undesirable ears, poorly husked ears, husks, trash, etc., sending only the drier, clean ears to storage. Feed wet, low quality corn before it spoils.

For storing the good corn, ventilating chutes, both horizontal and vertical, should be put in the wet corn in the crib. Ventilating chutes can be made out of large diameter tile with corn cobs between each tile to permit

[3] See Ohio Agricultural Extension Serivce Bulletin 283: Permanent Pastures.

[4] See Ohio Agricultural Experiment Station, Bimonthly Bulletin 222: The Trash-Mulch Method of Reclaiming Broomsedge and Poverty Grass Land With Alfalfa.

entrance of air, or by making chimneys of 2″ x 8″ 's or 2″ x 12″ 's held about a foot apart by cross pieces and the space covered with chicken wire to prevent the corn filling it, or by A-shaped ventilators and otherwise. With wet corn, sorting and ventilators will often make the difference between spoilage and no spoilage. Ear corn may be also artifically dried in some of the hybrid corn driers which are available in many parts of Ohio, or it may be shelled and dried in commercial corn driers.

As the weather warms up next spring watch corn in the crib. Dig back into the interior of the crib and see if there are any signs of heating or moulding. If there are, move it at once, and put in aeration if it was not done before. If serious damage threatens, take steps to dry the corn, either shelled or in the ear. Don't let corn spoil.

Order Seed Corn Now.—There is probably sufficient hybrid seed corn but if you wish to be sure of getting the adapted hybrids you want it is best to get your order in early.

Livestock Suggestions

How Livestock Farmers Can Save Grain. — The American Wheat Institute offered the following suggestions to livestock farmers whereby they may continue the production of livestock, yet conserve grain and food for foreign shipment.

1. Conserve grain supplies by feeding more roughage in the areas of abundant supply.
2. Replace old sows with gilts—good management any time.
3. Plant small grains for early spring pastures.
4. Cull more closely non-productive dairy herds and poultry flocks.
5. Kill rats—now easy to do. Each rat can eat 50 pounds of corn and waste 50 to 100 pounds more.
6. Kill weevils.
7. Use grain for finishing only.
8. Avoid feeding hogs to extreme heavy weights.
9. Eliminate losses of feed grains by careful harvest and storage.
10. Feed only damaged or off-grade wheat.
11. Use an adequate amount of protein in the ration to save corn, depending on prices of proteins and kind of livestock.
12. Feed substitutes like oats, barley, grain sorghums, buckwheat, rye.
13. Use all the corn plant—the stalk has half of the nutrients.
14. Don't feed sound corn if neighbors or other farmers have soft or damaged corn you can buy and use profitably.
15. Don't expose husked corn to weather for long periods in outside storage.
16. Be a faithful nursemaid when the pigs are being born.
17. Raise two litters a year—make the most of your feed and equipment.
18. Breed some gilts for late farrowing. The pigs can be started on spring grains and pasture and finished on 1948 corn.

19. Save all the pigs, vaccinate and practice sanitation.

20. Make more beef with grass, wheat and rye pastures, and winter legumes. In this connection it is reliably estimated that more than 80 per cent of the United States beef is produced without corn.

21. Extend control of cattle grubs, barn and stables flies, lice and ticks through wider use of dips and sprays.

Many additions may be made to these suggestions, such as the feeding of potatoes, salvaged grains, flour by-products, garbage and any other product which has nutritive value for animals, yet not adapted to human consumption. Our country has never been in a position where it was necessary to conserve every inch of earth and every scrap of food. Many countries are in that position today and still they can not glean enough to prevent hunger.

No. I.—For Brood Sows in Gestation		*No. II.—For Hogs in Fattening Pen*	
Grain	30%	Grain	50%
Wheat middlings	30%	Middlings or potatoes	25%
Alfalfa leaf meal	30%	Alfalfa leaf meal	15%
40% protein supplement	10%	40% protein supplement	10%

Most brood sow owners use as much as 75% grain in the ration. This mixture is not ideal, but it may be depended upon to give reasonably good results for sows that are to farrow in the spring.

No. II ration given above will not produce gains as rapidly as rations containing as much as 80% grain. However, pigs in the fattening pen will make reasonably good gains and there will be a great savings in salable grain.

Potatoes may be substituted for wheat middlings. It is imperative that any potatoes used in swine rations be cooked.

Save Feed in the Poultry House

Feed your chickens well. If there ever was a time when a balanced ration, a complete ration, a good ration, was essential, it is now. You can produce a dozen eggs with much less feed when the ration is adequate than when you are feeding a poor one. Every experienced poultry man knows this.

Cull every chicken that is not laying. Culling should be a continuous farm operation. The hen that is moulting, the one with yellow legs, and the one that sits on the roost and does not feel well--whatever the reason—"Off with their heads!"

Many Ohio poultry houses are rats' nests. Conditions are ideal in a poultry house for the breeding and rearing of large, A-grade rats. Many of our poultry rations were developed in research laboratories by using rats as experimental animals. Is it any wonder that they love your chickenhouse? Kill the rats.

Do not waste feed by filling your mash boxes and feed troughs too full. Check up and see whether the hens are billing the mash out. If they are, you are putting in too much mash. Fill the box half full and feed more often instead of filling it full and letting your birds waste it.